

AGRONOMY

Contest Overview

The Agronomy Contest is designed to motivate students to learn about crop production and factors that influence the quality of seed and forage crops.

Contest Objectives

Students participating in the Agronomy Contest should develop the following skills and abilities:

1. To identify weeds and crops by the seed or plant parts.
2. To evaluate the quality of crop seed and hay samples for feeding, planting, or processing for food.
3. To identify weeds as either prohibited, noxious, or common, and length of life cycle.
4. To develop an understanding of the biological principles underlying production practices of major crops and of their handling for further marketing.

Contest Format and Scoring

- I. IDENTIFICATION--Time, One Hour (400 points)
 - A. Contestants will identify 50 crop plant or seed samples at 3 points each from the list on Form 21A.
 - B. Contestants will identify 50 weed plant or seed samples at 3 points each from the list on Form 21B.
 - C. The life cycle for each plant and/or seed will be identified as Winter Annual, Summer Annual, Biennial, or Perennial (1 point each). The scoring of the Field Crop Contest will be that the crop plant or seed ID and the weed plant or seed ID **MUST BE CORRECT** in order to receive points for the life cycle. Therefore if:
 - Sample identified correctly and life cycle correct = 4 points
 - Sample identified correctly and life cycle incorrect = 3 points
 - Sample identified incorrectly and life cycle correct = 0 points
 - D. Wheat and corn types need to be identified and distinguished in the seed category only.

- E. No more than one seed and one plant from any species.
- F. **NO** instructor or student may obtain any plants, seeds, contaminants, or other materials from the contest superintendent, Weed Science Unit, or Bradford Research Farm after **the last district contest** prior to state competition. (This includes workshops and district contests which may be presented throughout the state). Questions, which would result in a competitive advantage for one or more schools, will not be answered prior to state competition.

II. SEED AND HAY JUDGING--Time, One Hour (260 points)

A. Seed Judging (200 points)

1. Contestants will place two four-sample classes on their value as seed for marketing or planting. Wheat and soybeans will be the crops utilized in seed judging. Reasons will be given by checking the evaluation factors present in each sample. (Note: Contest superintendents should place a minimum of 10 foreign seeds per plate.) Students should mark all factors present, regardless of number. All factors must be clearly observable. (Form 22 will be used for seed judging. A 60-point scoring table will be used to score the students' placings of the samples.)
2. Each class of seed will be graded on the basis of 60 points for placings and 40 points for reasons. Eight factors will be used in each four-sample class. Each factor marked correctly will be worth five points. If any of the eight factors are not marked, five points will be deducted for each factor omitted. Two points will be deducted for each factor marked that should not have been marked.

NOTE: A given sample may contain a maximum of two prohibited and/or two noxious and/or two common weed seeds.

3. The following will be considered judging factors in determining reasons for placing samples:
 - a. Freedom from mixtures (other varieties and other crops)
 - b. Freedom from inert material (includes stems, dirt, chaff, etc.)
 - c. Freedom from weed seeds (prohibited, noxious, common - see revised weed classifications, Part D under SUBJECT MATTER below)
 - d. Soundness (weathering, disease, immature seed, insect damage, sprouted kernels, etc.)

4. Factor values for each crop are provided on the following pages. Using these values, add the factor values for each sample as decided by sample condition. The sample with the lowest total factor value is the best sample.

B. Hay Judging (100 points)

Hay judging will cover alfalfa only. A four-sample class will be judged on the basis of final placing only. Final placing is worth 60 points. The student should be encouraged and taught to understand the quality factors used in judging hay. The quality factor breakdown should include leafiness (50%), color (25%), foreign material (25%). These should be considered by the student and taught by the advisor to arrive at the final placing which will total 60 points. (Form 23 will be used for the hay judging classes. A 60-point scoring table will be used to score the students' placings of the samples.) Analysis information scenario will be provided for the hay samples. Students will be tested (10 questions worth 4 points each for a total of 40 points) over the analysis information provided on the hay samples.

III. SUBJECT MATTER--Time, One Hour (300 points)

- A. A 100 question objective type test covering well established production practices and information contained in the references will be used.
- B. Biological principles underlying production practices of major crops will be emphasized to include the following: variety selection, propagation, life of plant (annual, biennial, perennial), soil and climatic adaptation, cultural practices affecting crop growth and quality, disease resistance, insect relations, and principle uses. Problems on chemical application and seeding rate may also be included.
- C. Soil requirements and climatic adaptation and uses of miscellaneous crops will include tobacco, rice, winter vetch, rape, millet, sunflower, and crown vetch.
- D. Questions over weeds will include classification, life of plant, propagation, and means of control. Weeds to be covered are limited to the following from each class (Missouri Seed Laws and Regulations 2 CSR 70-35.010 state code of regulation will be used as the official guide):
 1. Prohibited--Canada thistle, field bindweed, johnsongrass, musk thistle, sorghum alum
 2. Noxious--Black nightshade, buckhorn plantain, curled dock, dodder, giant foxtail, hedge bindweed, quackgrass, red sorrel, wild garlic, wild onion

3. Common--Barnyard grass, bracted plantain, broomsedge, bull thistle, cheat, chicory, chickweed, climbing milkweed, cocklebur, common milkweed, common (broadleaf) plantain, common ragweed, common sunflower, corncockle, crabgrass, daisy fleabane, dandelion, downy brome grass, fall panixum, giant ragweed, goosegrass, green foxtail, henbit, horse nettle, ironweed, jimson weed, lambsquarter, morning glory, nutgrass, oxeye daisy, Pennsylvania smartweed, perennial peppergrass, pigweed, prickly lettuce, shattercane, shepherd's purse, spiny sida, velvetleaf, water hemp, wild buckwheat, wild carrot, wild mustard, yellow foxtail

Contest Rules

1. Contestants will not be allowed to communicate with other contestants while the contest is in progress.
2. Contestants will not be allowed to handle plant or weed samples.

References

Advanced Crop Science (Instructor Packet 10-1002-I) (2000), University of Missouri, Instructional Materials Laboratory, 2316 Industrial Drive, Columbia, MO 65202. Phone: 800-669-2465, www.iml.coe.missouri.edu.

Plant Science Unit (Instructor Packet 10-1005-I). University of Missouri, Instructional Materials Laboratory, 2316 Industrial Drive, Columbia, MO 65202. Phone: 800-669-2465, www.iml.coe.missouri.edu.

Sims, Barry D. & M.S. DeFelice. Weed Control Guide for Missouri Field Crops - 1990, MP-575. CES, University of Missouri, Extension Publications, 106 pp.

DeFelice, M.S. & Barry D. Sims. Weed and Brush Control Guide: Forages, Pastures, and Non-Cropland in Missouri, MP-581. CES, University of Missouri, Extension Publications, 31 pp.

Delorit, R.J., L.J. Greub, & H.J. Ahlgren (1984). Crop Production, 5th edition, Prentice-Hall, Inc., Englewood Cliffs, N.J., 768 pp.

Weeds of the North Central States (1981). North Central Region Publication 281 and Circular 772, Illinois Agricultural Experiment Station, Urbana, IL, 303 pp.

MU Guides on Forages:

Forages for Cattle: New Methods of Determining Energy Content and Evaluating Heat Damage - G3150.

Understanding and Interpreting Feed Analysis Reports - G3160

Using NDF and ADF to Balance Diets - G3161

The following list will serve as the **official classification** in regards to **Winter Annual (WA), Summer Annual (SA), Biennial (B), Perennial (P)** for the Crop and weed Plants & Seeds used in the Field Crops contest:

| Crop Plant/Seed | Weed Plant/Seed | | | | |
|--------------------------------|-----------------|----------------------------|-----------|--------------------------------|-----------|
| 1. Alfalfa | P | 41. Barnyard grass | SA | 68. Henbit | WA |
| 2. Alsike Clover..... | P | 42. Black nightshade | SA | 69. Horse nettle | P |
| 3. Barley | WA | 43. Bracted plantain..... | P | 70. Ironweed | P |
| 4. Bermuda grass | P | 44. Buckhorn plantain..... | P | 71. Jimson weed..... | SA |
| 5. Big Bluestem | P | 45. Bull thistle | B | 72. Johnson grass..... | P |
| 6. Birdsfoot trefoil..... | P | 46. Canada thistle..... | P | 73. Lambsquarter..... | SA |
| 7. Common lespedeza..... | SA | 47. Cheat/Downy Bromegrass | WA | 74. Large crabgrass | SA |
| 8. Corn (plant)..... | SA | 48. Chicory..... | P | 75. Morning glory | SA |
| 9. Cotton..... | SA | 49. Climbing milkweed..... | P | 76. Musk thistle | B |
| 10. Crown vetch..... | P | 50. Cocklebur..... | SA | 77. Nut sedge | P |
| 11. Grain sorghum..... | SA | 51. Common chickweed..... | WA | 78. Oxeye daisy | P |
| 12. Hard red winter wheat..... | WA | 52. Common milkweed | P | 79. Pennsylvania smartweed .. | SA |
| 13. Hairy vetch..... | WA | 53. Common plantain..... | P | 80. Perennial peppergrass..... | P |
| 14. Indian grass | P | 54. Common ragweed..... | SA | 81. Pigweed/Waterhemp..... | SA |
| 15. Kentucky bluegrass | P | 55. Common sunflower..... | SA | 82. Prickly lettuce..... | SA |
| 16. Korean lespedeza..... | SA | 56. Corncockle..... | WA | 83. Prickly sida..... | SA |
| 17. Lohop clover | WA | 57. Curled dock..... | P | 84. Quackgrass..... | P |
| 18. Oats | WA | 58. Daisy fleabane | SA | 85. Red sorrel | P |
| 19. Orchard grass..... | P | 59. Dandelion..... | P | 86. Shatter cane | SA |
| 20. Pearl millet..... | SA | 60. Dodder..... | SA | 87. Shepherd's purse..... | WA |
| 21. Perennial ryegrass..... | P | 61. Fall panicum | SA | 88. Sorghum alum..... | P |
| 22. Popcorn | SA | 62. Field bindweed..... | P | 89. Velvetleaf..... | SA |
| 23. Rape | WA | 63. Giant foxtail..... | SA | 90. Wild buckwheat..... | SA |
| 24. Red clover | P | 64. Giant ragweed | SA | 91. Wild carrot..... | B |
| 25. Reed canary grass..... | P | 65. Goose grass | SA | 92. Wild garlic/onion..... | P |
| 26. Rice SA | | 66. Green foxtail | SA | 93. Wild mustard..... | WA |
| 27. Rye | WA | 67. Hedge bindweed..... | P | 94. Yellow foxtail..... | SA |
| 28. Serecia lespedeza | P | | | | |
| 29. Smooth brome grass | P | | | | |
| 30. Soft red winter wheat..... | WA | | | | |
| 31. Soybean | SA | | | | |
| 32. Sweet clover | B | | | | |
| 33. Sweet corn..... | SA | | | | |
| 34. Switch grass | P | | | | |
| 35. Tall fescue | P | | | | |
| 36. Timothy..... | P | | | | |
| 37. Tobacco..... | SA | | | | |
| 38. Wheat (plant)..... | WA | | | | |
| 39. White clover..... | P | | | | |
| 40. Yellow corn..... | SA | | | | |

SEED WHEAT

(Values allotted to subheads will not necessarily equal the values of main headings. The main headings represent the maximum for the factors.)

| <u>Factor</u> | <u>(Deduction)</u> | <u>Maximum Deduction</u> |
|--|--------------------|--------------------------|
| MIXTURES..... | | 30 |
| Other varieties of wheat..... (10) (durum, white wheat, etc.) | | |
| Other varieties of wheat within the..... (5) class (indicated by distinct differences in shape) | | |
| Other crops (rye 15, vetch 15, (20) barley 10, oats 5) | | |
| INERT MATERIAL..... | | 5 |
| Includes stems, dirt, chaff, etc (5) | | |
| WEED SEED..... | | 40 |
| Prohibited weeds*..... (40) | | |
| Noxious weeds (25) | | |
| Common weeds (corn cockle - 10)..... (5) | | |
| SOUNDNESS..... | | 25 |
| Weathered, bleached, or heat damage (10) | | |
| Sprouted (10) | | |
| Immature (shrunken kernel) (5) | | |
| Disease (scab, smut, or blacktip)..... (10) | | |
| Mechanical damage (5) | | |
| Insect damage (5) | | |

100

*Any sample containing a prohibited weed will automatically be placed at the bottom of the four- sample class regardless of total numerical value associated with the sample.

SOYBEANS

(Values allotted to subheads will not necessarily equal the values of main headings. The main headings represent the maximum for the factors.)

| <u>Factor</u> | <u>(Deduction)</u> | <u>Maximum Deduction</u> |
|---|--------------------|--------------------------|
| MIXTURES..... | | 35 |
| Other varieties | (20) | |
| Other crops (corn, sorghum, etc.)..... | (25) | |
| INERT MATERIAL..... | | 5 |
| Includes stems, dirt, chaff, etc | (5) | |
| WEED SEED..... | | 30 |
| Prohibited weeds* | (30) | |
| Noxious weeds | (20) | |
| Common weeds (morning glory, cocklebur - 15)..... | (10) | |
| SOUNDNESS..... | | 30 |
| Weathered | (5) | |
| Immature (shrunken kernels)..... | (10) | |
| Disease (purple spot) | (5) | |
| Mechanical damage | (10) | |
| Insect damage | (5) | |

100

*Any sample containing a prohibited weed will automatically be placed at the bottom of the four- sample class regardless of total numerical value associated with the sample.

SIXTY-POINT SCORING TABLE

The score for all possible placings of a class of four samples when any one of the 24 placings is correct. The scores range from 60 with a correct placing to 0 with a complete reversal.

| Student's Placings | Correct Placing | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1 2 3 4 | 60 | 54 | 54 | 42 | 42 | 36 | 54 | 48 | 42 | 24 | 30 | 18 | 42 | 30 | 36 | 18 | 12 | 6 | 24 | 18 | 18 | 6 | 6 | 0 |
| 1 2 4 3 | 54 | 60 | 42 | 36 | 54 | 42 | 48 | 54 | 30 | 18 | 42 | 24 | 24 | 18 | 18 | 6 | 6 | 0 | 42 | 30 | 36 | 18 | 12 | 6 |
| 1 3 2 4 | 54 | 42 | 60 | 54 | 36 | 42 | 42 | 30 | 36 | 18 | 12 | 6 | 54 | 48 | 42 | 24 | 30 | 18 | 18 | 24 | 6 | 0 | 18 | 6 |
| 1 3 4 2 | 42 | 36 | 54 | 60 | 42 | 54 | 24 | 18 | 18 | 6 | 6 | 0 | 48 | 54 | 30 | 18 | 42 | 24 | 30 | 42 | 12 | 6 | 36 | 18 |
| 1 4 2 3 | 42 | 54 | 36 | 42 | 60 | 54 | 30 | 42 | 12 | 6 | 36 | 18 | 18 | 24 | 6 | 0 | 18 | 6 | 54 | 48 | 42 | 24 | 30 | 18 |
| 1 4 3 2 | 36 | 42 | 42 | 54 | 54 | 60 | 18 | 24 | 6 | 0 | 18 | 6 | 30 | 42 | 12 | 6 | 36 | 18 | 48 | 54 | 30 | 18 | 42 | 24 |
| 2 1 3 4 | 54 | 48 | 42 | 24 | 30 | 18 | 60 | 54 | 54 | 42 | 42 | 36 | 36 | 18 | 42 | 30 | 6 | 12 | 18 | 6 | 24 | 18 | 0 | 6 |
| 2 1 4 3 | 48 | 54 | 30 | 18 | 42 | 24 | 54 | 60 | 42 | 36 | 54 | 42 | 18 | 6 | 24 | 18 | 0 | 6 | 36 | 18 | 42 | 30 | 6 | 12 |
| 2 3 1 4 | 42 | 30 | 36 | 18 | 12 | 6 | 54 | 42 | 60 | 54 | 36 | 42 | 42 | 24 | 54 | 48 | 18 | 30 | 6 | 0 | 18 | 24 | 6 | 18 |
| 2 3 4 1 | 24 | 18 | 18 | 6 | 6 | 0 | 42 | 36 | 54 | 60 | 42 | 54 | 30 | 18 | 48 | 54 | 24 | 42 | 12 | 6 | 30 | 42 | 18 | 36 |
| 2 4 1 3 | 30 | 42 | 12 | 6 | 36 | 18 | 42 | 54 | 36 | 42 | 60 | 54 | 6 | 0 | 18 | 24 | 6 | 18 | 42 | 24 | 54 | 48 | 18 | 30 |
| 2 4 3 1 | 18 | 24 | 6 | 0 | 18 | 6 | 36 | 42 | 42 | 54 | 54 | 60 | 12 | 6 | 30 | 42 | 18 | 36 | 30 | 18 | 48 | 54 | 24 | 42 |
| 3 1 2 4 | 42 | 24 | 54 | 48 | 18 | 30 | 36 | 18 | 42 | 30 | 6 | 12 | 60 | 54 | 54 | 42 | 42 | 36 | 6 | 18 | 0 | 6 | 24 | 18 |
| 3 1 4 2 | 30 | 18 | 48 | 54 | 24 | 42 | 18 | 6 | 24 | 18 | 0 | 6 | 54 | 60 | 42 | 36 | 54 | 42 | 18 | 36 | 6 | 12 | 42 | 30 |
| 3 2 1 4 | 36 | 18 | 42 | 30 | 6 | 12 | 42 | 24 | 54 | 48 | 18 | 30 | 54 | 42 | 60 | 54 | 36 | 42 | 0 | 6 | 6 | 18 | 18 | 24 |
| 3 2 4 1 | 18 | 6 | 24 | 18 | 0 | 6 | 30 | 18 | 48 | 54 | 24 | 42 | 42 | 36 | 54 | 60 | 42 | 54 | 6 | 12 | 18 | 36 | 30 | 42 |
| 3 4 1 2 | 12 | 6 | 30 | 42 | 18 | 36 | 6 | 0 | 18 | 24 | 6 | 18 | 42 | 54 | 36 | 42 | 60 | 54 | 24 | 42 | 18 | 30 | 54 | 48 |
| 3 4 2 1 | 6 | 0 | 18 | 24 | 6 | 18 | 12 | 6 | 30 | 42 | 18 | 36 | 36 | 42 | 42 | 54 | 54 | 60 | 18 | 30 | 24 | 42 | 48 | 54 |
| 4 1 2 3 | 24 | 42 | 18 | 30 | 54 | 48 | 18 | 36 | 6 | 12 | 42 | 30 | 6 | 18 | 0 | 6 | 24 | 18 | 60 | 54 | 54 | 42 | 42 | 36 |
| 4 1 3 2 | 18 | 30 | 24 | 42 | 48 | 54 | 6 | 18 | 0 | 6 | 24 | 18 | 18 | 36 | 6 | 12 | 42 | 30 | 54 | 60 | 42 | 36 | 54 | 42 |
| 4 2 1 3 | 18 | 36 | 6 | 12 | 42 | 30 | 24 | 42 | 18 | 30 | 54 | 48 | 0 | 6 | 6 | 18 | 18 | 24 | 54 | 42 | 60 | 54 | 36 | 42 |
| 4 2 3 1 | 6 | 18 | 0 | 6 | 24 | 18 | 18 | 30 | 24 | 42 | 48 | 54 | 6 | 12 | 18 | 36 | 30 | 42 | 42 | 36 | 54 | 60 | 42 | 54 |
| 4 3 1 2 | 6 | 12 | 18 | 36 | 30 | 42 | 0 | 6 | 6 | 18 | 18 | 24 | 24 | 42 | 18 | 30 | 54 | 48 | 42 | 54 | 36 | 42 | 60 | 54 |
| 4 3 2 1 | 0 | 6 | 6 | 18 | 18 | 24 | 6 | 12 | 18 | 36 | 30 | 42 | 18 | 30 | 24 | 42 | 48 | 54 | 36 | 42 | 42 | 54 | 54 | 60 |

To be used in grading seed and hay judging final placings.

EXAMPLE: If the correct placing was 3 2 1 4 (indicated by the shading and arrow at the top of the page) and the student placed the sample 2 3 4 1, then the score of 48 (indicated by the shaded square) would be given.

Crop Plant or Seed Identification

Name: _____ Contest Number: _____

School: _____ School Number: _____

(WA) Winter Annual **(SA)** Summer Annual **(B)** Biennial **(P)** Perennial

Directions: Enter the correct Crop Plant/Seed Code and darken the area of the correct answer.

- | | |
|----------------------------|----------------------------|
| 1. ____ (WA) (SA) (B) (P) | 26. ____ (WA) (SA) (B) (P) |
| 2. ____ (WA) (SA) (B) (P) | 27. ____ (WA) (SA) (B) (P) |
| 3. ____ (WA) (SA) (B) (P) | 28. ____ (WA) (SA) (B) (P) |
| 4. ____ (WA) (SA) (B) (P) | 29. ____ (WA) (SA) (B) (P) |
| 5. ____ (WA) (SA) (B) (P) | 30. ____ (WA) (SA) (B) (P) |
| 6. ____ (WA) (SA) (B) (P) | 31. ____ (WA) (SA) (B) (P) |
| 7. ____ (WA) (SA) (B) (P) | 32. ____ (WA) (SA) (B) (P) |
| 8. ____ (WA) (SA) (B) (P) | 33. ____ (WA) (SA) (B) (P) |
| 9. ____ (WA) (SA) (B) (P) | 34. ____ (WA) (SA) (B) (P) |
| 10. ____ (WA) (SA) (B) (P) | 35. ____ (WA) (SA) (B) (P) |
| 11. ____ (WA) (SA) (B) (P) | 36. ____ (WA) (SA) (B) (P) |
| 12. ____ (WA) (SA) (B) (P) | 37. ____ (WA) (SA) (B) (P) |
| 13. ____ (WA) (SA) (B) (P) | 38. ____ (WA) (SA) (B) (P) |
| 14. ____ (WA) (SA) (B) (P) | 39. ____ (WA) (SA) (B) (P) |
| 15. ____ (WA) (SA) (B) (P) | 40. ____ (WA) (SA) (B) (P) |
| 16. ____ (WA) (SA) (B) (P) | 41. ____ (WA) (SA) (B) (P) |
| 17. ____ (WA) (SA) (B) (P) | 42. ____ (WA) (SA) (B) (P) |
| 18. ____ (WA) (SA) (B) (P) | 43. ____ (WA) (SA) (B) (P) |
| 19. ____ (WA) (SA) (B) (P) | 44. ____ (WA) (SA) (B) (P) |
| 20. ____ (WA) (SA) (B) (P) | 45. ____ (WA) (SA) (B) (P) |
| 21. ____ (WA) (SA) (B) (P) | 46. ____ (WA) (SA) (B) (P) |
| 22. ____ (WA) (SA) (B) (P) | 47. ____ (WA) (SA) (B) (P) |
| 23. ____ (WA) (SA) (B) (P) | 48. ____ (WA) (SA) (B) (P) |
| 24. ____ (WA) (SA) (B) (P) | 49. ____ (WA) (SA) (B) (P) |
| 25. ____ (WA) (SA) (B) (P) | 50. ____ (WA) (SA) (B) (P) |

CROP PLANT/SEED CODES

1. Alfalfa
2. Alsike Clover
3. Barley
4. Bermuda grass
5. Big Bluestem
6. Birdsfoot trefoil
7. Common lespedza
8. Corn (plant)
9. Cotton
10. Crown vetch
11. Grain sorghum
12. Hard red winter wheat
13. Hairy vetch
14. Indian grass
15. Kentucky bluegrass
16. Korean lespedeza
17. Lohop clover
18. Oats
19. Orchard grass
20. Pearl millet
21. Perennial ryegrass
22. Popcorn
23. Rape
24. Red clover
25. Reed canary grass
26. Rice
27. Rye
28. Serecia lespedeza
29. Smooth brome grass
30. Soft red winter wheat
31. Soybean
32. Sweet clover
33. Sweet corn
34. Switch grass
35. Tall fescue
36. Timothy
37. Tobacco
38. Wheat (plant)
39. White clover
40. Yellow corn

Weed Plant or Seed Identification

FORM 21B

Name: _____ Contest Number: _____

School: _____ School Number: _____

(WA) Winter Annual **(SA)** Summer Annual **(B)** Biennial **(P)** Perennial

Directions: Enter the correct Weed Plant/Seed Code and darken the area of the correct answer.

- | | |
|----------------------------|----------------------------|
| 1. ____ (WA) (SA) (B) (P) | 26. ____ (WA) (SA) (B) (P) |
| 2. ____ (WA) (SA) (B) (P) | 27. ____ (WA) (SA) (B) (P) |
| 3. ____ (WA) (SA) (B) (P) | 28. ____ (WA) (SA) (B) (P) |
| 4. ____ (WA) (SA) (B) (P) | 29. ____ (WA) (SA) (B) (P) |
| 5. ____ (WA) (SA) (B) (P) | 30. ____ (WA) (SA) (B) (P) |
| 6. ____ (WA) (SA) (B) (P) | 31. ____ (WA) (SA) (B) (P) |
| 7. ____ (WA) (SA) (B) (P) | 32. ____ (WA) (SA) (B) (P) |
| 8. ____ (WA) (SA) (B) (P) | 33. ____ (WA) (SA) (B) (P) |
| 9. ____ (WA) (SA) (B) (P) | 34. ____ (WA) (SA) (B) (P) |
| 10. ____ (WA) (SA) (B) (P) | 35. ____ (WA) (SA) (B) (P) |
| 11. ____ (WA) (SA) (B) (P) | 36. ____ (WA) (SA) (B) (P) |
| 12. ____ (WA) (SA) (B) (P) | 37. ____ (WA) (SA) (B) (P) |
| 13. ____ (WA) (SA) (B) (P) | 38. ____ (WA) (SA) (B) (P) |
| 14. ____ (WA) (SA) (B) (P) | 39. ____ (WA) (SA) (B) (P) |
| 15. ____ (WA) (SA) (B) (P) | 40. ____ (WA) (SA) (B) (P) |
| 16. ____ (WA) (SA) (B) (P) | 41. ____ (WA) (SA) (B) (P) |
| 17. ____ (WA) (SA) (B) (P) | 42. ____ (WA) (SA) (B) (P) |
| 18. ____ (WA) (SA) (B) (P) | 43. ____ (WA) (SA) (B) (P) |
| 19. ____ (WA) (SA) (B) (P) | 44. ____ (WA) (SA) (B) (P) |
| 20. ____ (WA) (SA) (B) (P) | 45. ____ (WA) (SA) (B) (P) |
| 21. ____ (WA) (SA) (B) (P) | 46. ____ (WA) (SA) (B) (P) |
| 22. ____ (WA) (SA) (B) (P) | 47. ____ (WA) (SA) (B) (P) |
| 23. ____ (WA) (SA) (B) (P) | 48. ____ (WA) (SA) (B) (P) |
| 24. ____ (WA) (SA) (B) (P) | 49. ____ (WA) (SA) (B) (P) |
| 25. ____ (WA) (SA) (B) (P) | 50. ____ (WA) (SA) (B) (P) |

WEED PLANT/SEED CODES

41. Barnyard grass
42. Black nightshade
43. Bracted plantain
44. Buckhorn plantain
45. Bull thistle
46. Canada thistle
47. Cheat/Downy Bromegrass
48. Chicory
49. Climbing milkweed
50. Cocklebur
51. Common or mouse eared chickweed
52. Common milkweed
53. Common plantain
54. Common ragweed
55. Common sunflower
56. Corncockle
57. Curled dock
58. Daisy fleabane
59. Dandelion
60. Dodder
61. Fall panicum
62. Field bindweed
63. Giant foxtail
64. Giant ragweed
65. Goose grass
66. Green foxtail
67. Hedge bindweed
68. Henbit
69. Horse nettle
70. Ironweed
71. Jimson weed
72. Johnson grass
73. Lambsquarter
74. Large crabgrass
75. Morning glory
76. Musk thistle
77. Nut sedge
78. Oxeye daisy
79. Pennsylvania smartweed
80. Perennial peppergrass
81. Pigweed/Waterhemp
82. Prickly lettuce
83. Prickly sida
84. Quackgrass
85. Red sorrel
86. Shatter cane
87. Shepherd's purse
88. Sorghum alum
89. Velvetleaf
90. Wild buckwheat
91. Wild carrot
92. Wild garlic/onion
93. Wild mustard
94. Yellow foxtail

Seed Wheat Judging Estimating the Value of Planting Seed

Name: _____ Contestant Number: _____

School: _____ School Number: _____

| FINAL PLACING | | | |
|-----------------|-----------------|-----------------|-----------------|
| 1 ST | 2 ND | 3 RD | 4 TH |
| | | | |

| (FOR JUDGES USE ONLY) | |
|------------------------|--|
| Placing Score | |
| Reasons Score | |
| FINAL SCORE | |

| | | 1 | 2 | 3 | 4 | Judges Negative Deductions |
|--|--|---|---|---|---|----------------------------|
| EVALUATION FACTORS | Place an X or blacken in boxes where you feel the 8 evaluation factors are found | | | | | |
| Mixture (maximum deduction - 30) | Other Varieties | | | | | |
| | Other Crops | | | | | |
| Inert Material (maximum deduction - 5) | Chaff, dirt, etc. | | | | | |
| | | | | | | |
| Weed Seed (maximum deduction - 40) | Prohibited 1 st | | | | | |
| | 2 nd | | | | | |
| | Noxious 1 st | | | | | |
| | 2 nd | | | | | |
| | Common 1 st | | | | | |
| | 2 nd | | | | | |
| Soundness (maximum deduction - 25) | Weathered | | | | | |
| | Sprouted | | | | | |
| | Immature | | | | | |
| | Disease | | | | | |
| | Mechanical Damage | | | | | |
| | Insect Damage | | | | | |

Soybean Judging Estimating the Value of Planting Seed

Name: _____ Contestant Number: _____

School: _____ School Number: _____

| FINAL PLACING | | | |
|-----------------|-----------------|-----------------|-----------------|
| 1 ST | 2 ND | 3 RD | 4 TH |
| | | | |

| (FOR JUDGES USE ONLY) | |
|------------------------|--|
| Placing Score | |
| Reasons Score | |
| FINAL SCORE | |

| | | 1 | 2 | 3 | 4 | Judges Negative Deductions |
|--|--|---|---|---|---|----------------------------|
| EVALUATION FACTORS | Place an X or blacken in boxes where you feel the 8 evaluation factors are found | | | | | |
| Mixture (maximum deduction - 35) | Other Varieties | | | | | |
| | Other Crops | | | | | |
| Inert Material (maximum deduction - 5) | Chaff, dirt, etc. | | | | | |
| | | | | | | |
| Weed Seed (maximum deduction - 30) | Prohibited 1 st | | | | | |
| | 2 nd | | | | | |
| | Noxious 1 st | | | | | |
| | 2 nd | | | | | |
| | Common 1 st | | | | | |
| | 2 nd | | | | | |
| Soundness (maximum deduction - 30) | Weathered | | | | | |
| | Immature | | | | | |
| | Disease | | | | | |
| | Mechanical Damage | | | | | |
| | Insect Damage | | | | | |

HAY JUDGING*

Name: _____ Contestant Number: _____

School: _____ School Number: _____

| FACTORS | 1st | 2nd | 3rd | 4th | JUDGES SCORE |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|
| Leafiness | | | | | |
| Color | | | | | |
| Minimum Foreign Material | | | | | |
| Final Placing | | | | | |

*Place the class on each of the quality factors and the Final Placings.